

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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IN THE DIVISIONAL PATENT APPLICATION OF:

RANDY E. DEWHIRST AND MARK W.  
HARRISON

U.S. SERIAL NO: UNKNOWN

GROUP: UNKNOWN

FILED: UNKNOWN

EXAMINER: UNKNOWN

FOR: CENTRIFUGAL IMPELLER ASSEMBLY  
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La Crosse, Wisconsin  
August 10, 2001

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Date

*William O'Driscoll*  
William O'Driscoll

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Prior to calculating the claim fees for this divisional  
application, Please make the following changes in the application:

In the Claims:

Please cancel claims 1-33.

Please add the following new claims.

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42. A spacer for an impeller comprising:  
a contoured spacer body symmetrical about an axis and including a front surface and a rear surface;  
the front surface including a contoured surface at an angle or curve relative to the axis;  
the rear surface including a spring spacing abutment including a washer contact surface at an end of the abutment wherein the spring spacing abutment is axially dimensioned relative to the axis so that a spacer assembly contacting the abutment deflects at a desired amount.

43. The spacer of claim 42 wherein the contoured spacer body further includes a center portion have a recess arranged in the rear surface about the spring spacing abutment.

44. The spacer of claim 43 further including a central bore running through the center portion symmetrical about the axis.

45. The spacer body of claim 44 wherein the front surface includes a recess and a forward facing shoulder in the recess.

46. The spacer body of claim 45 wherein the recess is sized to ensure that the front face is seated flush across the central bore in order to make a substantially continuous surface.

47. The spacer body of claim 44 further including a truncated end in the front face.

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48. The spacer body of claim 47 wherein the truncated end is sized to accommodate a protective washer, a spacer assembly, and the contoured spacer body.

49. The spacer body of claim 45 wherein the body has an aerodynamic portion extending slightly around the spring spacing abutment.

50. The spacer of claim 45 wherein the rear surface provides an outer shoulder spaced radially outwardly and an inner shoulder surface spaced radially inwardly.

51. A spacer comprising:  
a contoured spacer body including a domed front end and a rear surface where the spacer body is symmetrical about an axis;  
the domed front end including a front face, a rear face, and a recess spring bearing surface in the rear face.

52. The spacer of claim 51 wherein the front face includes a recess.

53. The spacer of claim 51 wherein the front face provides a continuous aerodynamic surface.

54. The spacer of claim 53 further including indents or holes in the domed front end to allow a suitable tool bit to attach to the aerodynamic surface.

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Remarks

The foregoing amendments are to be made prior to the calculation of any fees or charges relating to the submission of this divisional application.

Respectfully Submitted,

A handwritten signature in cursive script, reading "William O'Driscoll". The signature is written in dark ink and is positioned below the typed name.

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